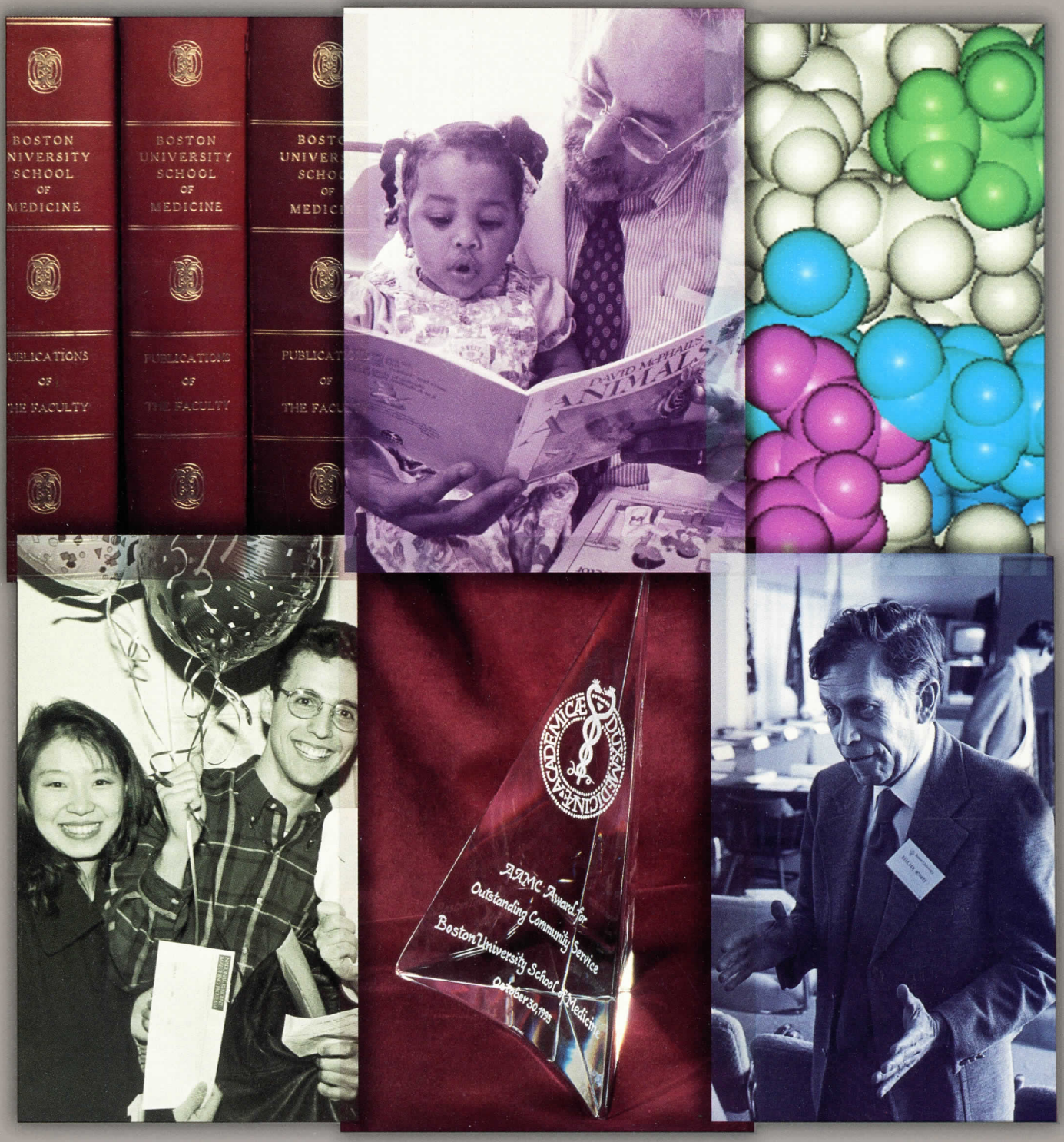
1996

Boston University School of Medicine Dean's report: 1996

DEAN'S REPORT | 1996



BOSTON UNIVERSITY

SCHOOL OF MEDICINE

One of the major highlights of this exciting academic year was the selection of the School of Medicine for the 1995 Outstanding Community Service Award by the Association of American Medical Colleges. This award recognizes the students, faculty and staff of Boston University School of Medicine—the soul of the institution itself—for creating a vigorous network of innovative social and public services here in Boston. This interaction with the people of Boston begins with literacy for youngsters and includes programs to improve the quality of life for elders. Some of the outstanding programs are described in the following pages.

From my perspective, the award is a public facet of a larger sense of purpose that has crystallized at the School of Medicine and the medical campus. First, the medical curriculum has been altered to reflect the shift in medical care away from hospitals and into the community. The sites for training medical students now include neighborhood health centers and private clinics throughout the city. Also, the focus of our basic biomedical research now more then ever before targets the molecular and cellular aspects of urban diseases. This is especially important because characterization of disease processes at the molecular level offers the greatest potential for improvements in disease prevention, early diagnosis and therapeutic intervention. The three research centers described in the pages that follow are using this new emphasis to explore heart disease, hypertension and sexually transmitted diseases.

In approving accreditation of the School of Medicine for another seven-year term, the Liaison Committee on Medical Education provided us with a very positive evaluation of the school. In their review that was carried out during the past year, they highlighted such strengths as the new curriculum, the enthusiasm and commitment of the medical students to the School, the high-quality research program, the recruitment of outstanding new faculty, the new facilities for teaching and research, our community service activities and perhaps most importantly, our vision, which may allow us to become a model for the urban health center of the twenty-first century. This vision, which we have shaped and which shapes us, is guided by a profound sense of civic responsibility and grounded in the new science to educate clinicians and medical researchers and to serve the urban population.

Aram V. Chobanian, M.D.

OUTSTANDING COMMUNITY SERVICE AWARD

"The story of the longstanding efforts of Boston University's medical school to improve the health of an inner-city community is critically important for the nation to hear right now, at a time when our leaders are contemplating substantial reductions in the public support that makes this community service possible. The positive impact of Boston University School of Medicine's community service clearly demonstrates the return our society receives for its investment in medical education—an investment that will become increasingly important and powerful as the nation's health care system evolves."

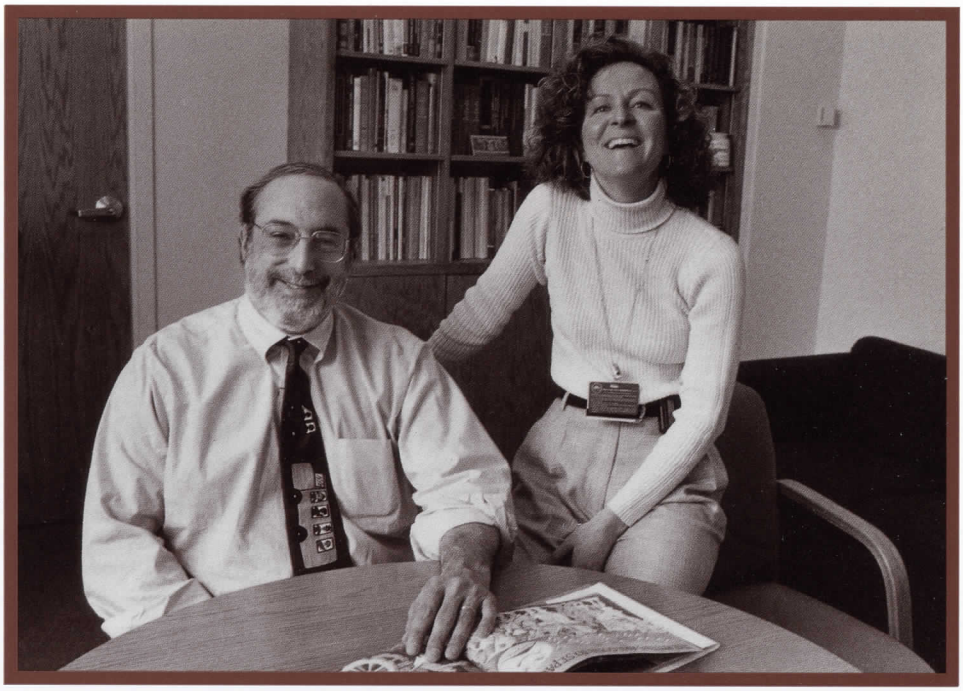
— American Association of Medical Colleges President Jordan J. Cohen, M.D.

Every student, faculty member and staff member owns the elegant glass award that was presented to Boston University School of Medicine on October 31, 1995, at the AAMC's annual meeting in Washington, D.C.

Here are some—but by no means all—of the teams that helped win the award.

Promoting Literacy in the Waiting Room

Reach Out and Read (ROAR), developed in the Department of Pediatrics, places books in the hands of inner-city children. At each of the twelve regular checkups during a child's first six years primary care physicians at Boston City Hospital give the child a book to keep. By integrating this gesture into the normal medical examination, the physician is able to develop a discussion with the parent about the impact that reading can have on a child's development. More than 50,000 books have already been handed out to children. A supplement to this effort takes place in the waiting room, where volunteers staff the office to read books aloud to waiting youngsters. With grant support from the Casey Foundation, the program is now being replicated at a number of sites throughout the country.



BARRY ZUCKERMAN, M.D., chairman, Department of Pediatrics, and KATHLEEN FITZGERALD RICE, M.S.Ed., director, Reach Out and Read

CARL FRANZBLAU, PH.D., associate dean, Division of Graduate Medical Sciences, and CONNIE PHILLIPS, M.A., M.P.H., director, City Lab

Citylab: A Biotechnology Resource for High Schools

In a special laboratory on our campus, high school students and their teachers learn about new scientific developments in CityLab, a learning laboratory that has become a regional resource for public schools that do not have the resources to train students in modern science and biotechnology. Funded in part by grants from the NIH and the Howard Hughes Medical Institute, CityLab has already trained 7,000 students and 500 high school teachers. It is so popular that it is booked a year ahead.

Back row: EILEEN O'BRIEN, director, ELAHP; GREGORY MARCHAND, '96; MONICA BHAREL,M.D., '94. *Front row:* ANNA BISSONNETTE, with volunteer HUGH BYRNES, a former client.

Homes and Housing for the Homeless

Under the direction of faculty member Anna Bissonnette, R.N., an associate professor of socio-medical sciences and community medicine, the Elders Living at Home Program (ELAHP) has located housing assistance for several hundred of Boston's elderly who are either homeless or at risk of becoming homeless. In 1992, she successfully rallied city, state and public support for the purchase and renovation of a Victorian building in Jamaica Plain. With a dedicated group of volunteers, she transformed the home into a modern shared living residence for nine homeless elderly women. In the closing weeks of 1995, Boston Mayor Thomas Menino joined Bissonnette in celebrating commencement of renovations of a vacant warehouse near the medical campus to create Concord Street Elder Housing, apartments for forty homeless elders.

Healthcare for the Homeless

Since 1985, Healthcare for the Homeless has provided clinical services at forty-three sites throughout the city for more than six thousand homeless men and women. Three years ago, the organization, led by James O'Connell, M.D., and Joan M. Lebow, M.D., both assistant professors of medicine, opened a fifty-one-bed medical respite unit, the Barbara McInnis House, which serves as a national model for recuperative care of homeless men and women who would otherwise require hospitalization. At the city's largest homeless shelters, such as Pine Street Inn and Rosie's Place, our students deal directly with medical aspects of homelessness and run one of the largest immunization programs in the city.

JAMES O'CONNELL, M.D., and JOAN LEBOW, M.D.

Academic and Community Approaches to Domestic Violence

Boston University School of Medicine was one of the first medical schools in the country to require medical students to take an integrated curriculum on domestic violence. Dr. Elaine Alpert, assistant dean for Student Affairs and assistant professor of medicine, has forged curricular innovations and public policy initiatives on this critical social issue. She is a member of the Governor's Commission on Domestic Violence and chairperson of the Massachusetts Medical Society's Committee on Violence. Together with Karen Freund, M.D., chief, Women's Health Unit, Boston University Medical Center Hospital, and associate professor of medicine, and three medical students, she authored an award-winning guidebook on partner violence that has been distributed to 50,000 health care professionals nationwide. The package is also a key component of standard training materials for all Boston Emergency Medical Service personnel.

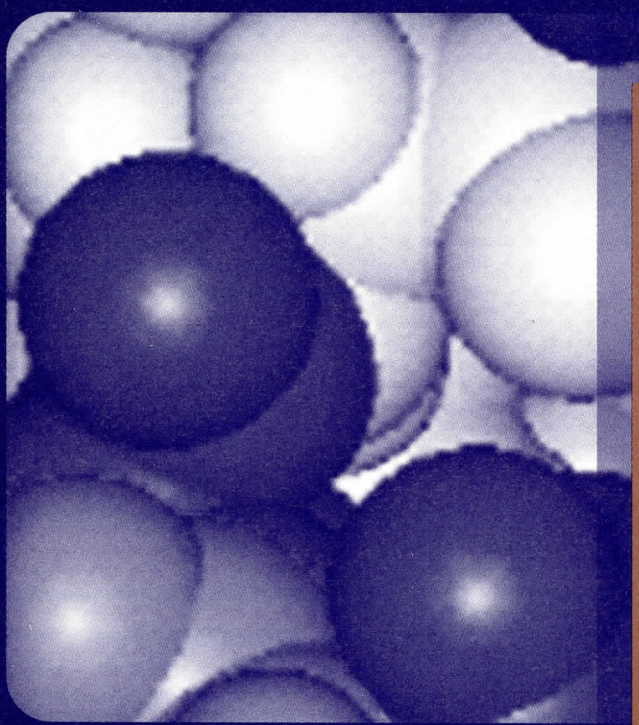
KAREN FREUND, M.D., and ELAINE ALPERT, M.D. (foreground), with students from the Class of of 1998 (left to right), TAMARA CONGDON, DAVID FORCIONE, JANET HANOUSEK, PRASH JAYARAJ, and CATHERINE MARIN

The Boston HealthNet Creates a Unique Environment in which Community Service Thrives

Because of the increased emphasis of our medical curriculum on primary care and education in social aspects of health and disease, many of our students learn to practice community-oriented medicine in health centers throughout the city. This interaction between classroom and clinic occurs in a network of neighborhood health centers. Many of these are included in the Boston HealthNet, which involves partnerships between the institutions on our campus and Codman Square Health Center, Dorchester House Multi-Service Center, East Boston Neighborhood Health Center, Harvard Street Neighborhood Health Center, Mattapan Community Health Center, South Boston Community Health Center, Upham's Corner Health Center, and Whittier Street Neighborhood Health Center.

THE URBAN MEDICAL CENTER OF THE 21ST CENTURY

Three Centers Examine the Molecular Basis of Urban Disease



In recent years, the interval between understanding the pathogenesis of disease and the application of this information to clinical patient care has become remarkably short. The research initiatives described here are distinguished by close links between basic scientists and clinical researchers in a system streamlined to take results from laboratory to bedside. At the Whitaker Cardiovascular Institute and the Maxwell Finland Laboratory for Infectious Disease, investigators continue a tradition of academic and clinical excellence in research that extends back several decades. At both, a cadre of bright young researchers promises to sustain the creative science and clinical expertise for years to come.

The Whitaker Cardiovascular Institute

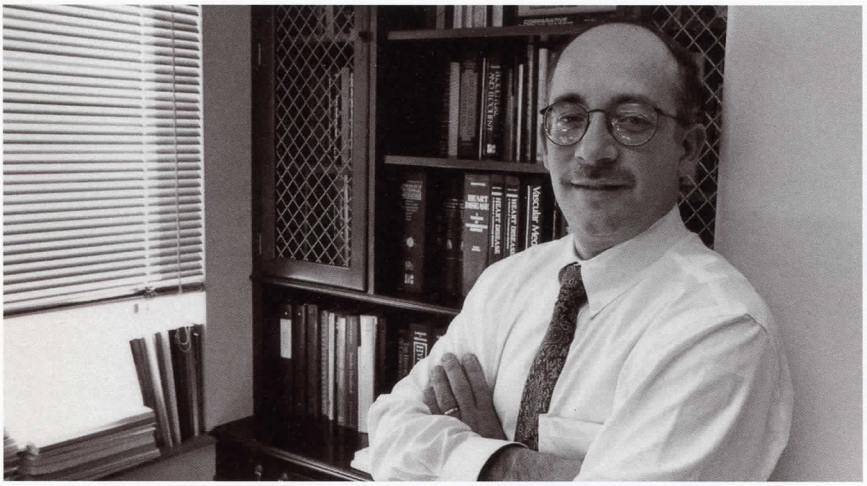
The Whitaker Cardiovascular Institute (CVI), established in 1974, combines and integrates the full spectrum of modern medicine: basic science and molecular medicine, clinical investigation, medical education, patient care, health policy planning and community research.

Under the direction of Joseph Loscalzo, M.D., Ph.D., who assumed leadership of the Institute in 1994, research has continued to expand in vascular biology, coronary artery disease and atherosclerosis. Dr. Loscalzo's expertise in these areas is widely recognized both nationally and internationally. Under his leadership, the National Institutes of Health in 1995 designated the Boston University School of Medicine as a Specialized Center for Research on Ischemic Heart Disease in Blacks. This research program addresses diseases common to the urban poor.

Significant research advances have contributed to a decline in heart disease and stroke in the U.S. over the past three decades. However, the scientific advances in cardiovascular medicine that account for the overall improvement in cardiovascular health have failed to translate into comparable racial benefits. Indeed, life expectancy and cardiovascular morbidity and mortality rates have improved far less for blacks than for whites.

"Certain very common diseases—hypertension and coronary heart disease—are accompanied by a complex set of vascular abnormalities that we're just beginning to understand," notes Dr. Loscalzo. "Some subsets of these disorders are particularly prevalent in the inner-city population. The molecular mechanisms underlying the predisposition to vascular disease serve as the basis for our newly funded Specialized Center of Research Program. Mechanisms underlying heart failure in these individuals are also an important focus of research at the Whitaker CVI. Boston University Medical Center's newly established Cardiomyopathy Program, led by Dr. Wilson Colucci, who is also chief of cardiology at the Boston VA Medical Center, represents an effort to develop basic and clinical research strategies to understand the basis for heart failure and to develop novel therapies for this common disorder (see sidebar).

"At the Whitaker CVI, investigators emphasize research efforts that span the spectrum from basic observation to clinical application. Several investigators are actively engaged in studies that address the genetics of specific cardiovascular disorders, the influence of environmental factors on these common polygenic diseases and novel approaches to their diagnosis and therapy,"says Dr. Loscalzo. "That we can derive direct applications from our findings makes us unique. The highly talented pool of investigators assembled at the CVI will ensure our leadership in cardiovascular medicine well into the future."



JOSEPH LOSCALZO, M.D., PH.D.

A New Therapeutic Approach to Failure of the Heart Muscle

"Heart Failure is one of the major chronic diseases," says Wilson S. Colucci, M.D., director of the School's new Cardiomyopathy Program. "Underdiagnosed and undertreated, it is also one of the costliest chronic diseases. But new drug regimens developed in the past ten years have radically changed what used to be a poor prognosis for failure of the heart muscle, and the Cardiomyopathy Program offers an array of ambulatory interventions that prevent hospitalization down the road."

Dr. Colucci, a 1975 graduate of BUSM, returned to the School last fall as professor of medicine and research professor of physiology. He is also chief of cardiology at the Boston Veterans Administration Medical Center and associate chief of the Cardiovascular Section at Boston University Medical Center Hospital. Dr. Colucci completed residency training and fellowship at Peter Bent Brigham Hospital, Harvard Medical School, where he rose to the rank of associate professor of medicine. Dr. Colucci's impressive record as a clinician scientist and as an established investigator of the American Heart Association has earned for him a national and international reputation as a molecular cardiologist.

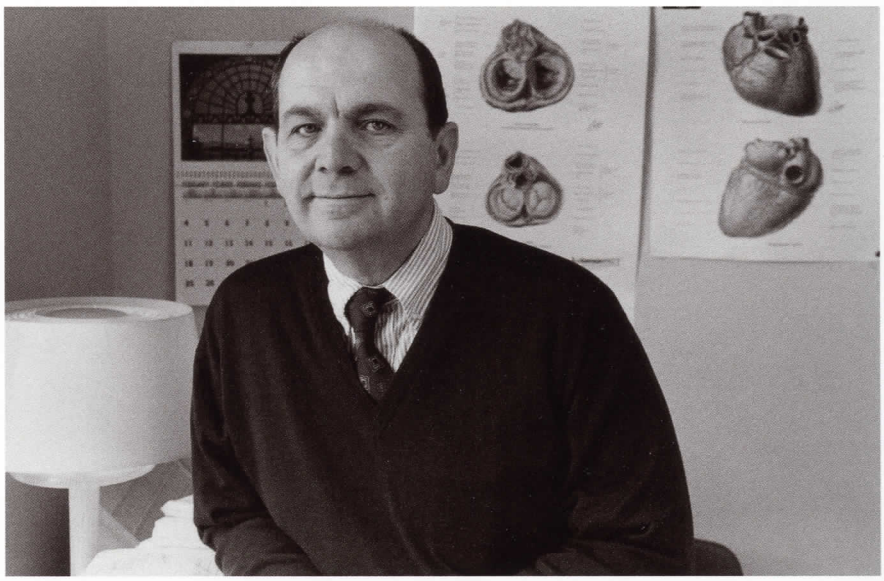
Dr. Colucci's bench to bedside approach includes NIH-funded studies on the molecular and cellular aspects of cardiac gene expression, animal models of heart failure and clinical trials with humans. Consistent with the medical school's focus, a major goal of Dr. Colucci's program is to develop strategies for preventing and managing heart failure in urban populations.

Specialized Center for Research on Hypertension

Hypertension affects 15 percent of Americans, but is far more prevalent in the African-American population, where it is responsible for a higher incidence of heart enlargement/heart failure, stroke and kidney failure. The overall prevalence of end-stage renal disease (ERSD) requiring hemodialysis is four times higher in blacks than in whites. Although socioeconomic factors may account in part for these differences, genetic factors also appear to play an important role in both the pathogenesis and complications of hypertension. The Specialized Center for Research (SCOR) on Hypertension has been funded for twenty consecutive years by the NIH at a level exceeding $1 million annually. Last year, I passed the mantle of leadership to Dr. Haralambos Gavras, a preeminent basic science and clinical investigator, who obtained NIH funding for the SCOR for another five years to study the genetic basis of Hypertension.

Dr. Gavras, a graduate of Athens University, is currently president of the Inter-American Hypertension Society and chairman-elect of the Council on High Blood Pressure Research of the American Heart Association. This year he was honored by the Hellenic Medical Society for Achievements in Hypertension. He has been the recipient of the Arthur Corcoran Memorial Award in 1993, and the Lewis K. Dahl Memorial Award in 1994 of the American Heart Association. Twenty-four years ago Dr. Gavras discovered the role of angiotensin II in causing myocardial infarction. He subsequently demonstrated the effect of angiotensin converting enzyme (ACE) inhibitors in hypertension and congestive heart failure. This work stimulated research into preventing injury of the heart and vasculature using ACE inhibitors.

Today, scientists at the center are exploring the genetic epidemiology and molecular genetics of different forms of hypertension common among inner-city populations. The breadth of expertise required to address these problems ranges widely from molecular genetics and molecular biology to clinical studies. Hypertension is a heterogeneous disease probably caused by several genes interacting with environmental factors, but not necessarily the same set of genes or environmental factors in each person. To tease out the complex genetic information, Dr. Gavras's team is composed of a group of scientists including Peter Brecher, Ph.D., professor of biochemistry; Cassandra Smith, Ph.D., professor of biomedical engineering and biology, and professor of pharmacology and experimental therapeutics; Clinton Baldwin, Ph.D., associate research professor of pediatrics and assistant research professor of biochemistry; Lindsay Farrar, Ph.D., associate professor of neurology and public health; and Diane Handy, Ph.D., assistant research professor of medicine. The team is subcharacterizing hypertensives into relatively homogeneous groups by clinical criteria and then studying gene abnormalities in families and siblings in these groups. Beverly J. Paigen, Ph.D., senior staff scientist, The Jackson Laboratories, Bar Harbor, Maine, a renowned mouse geneticist, is also collaborating with the group by comparing genetic information from hypertensive mouse strains with homologous human genomic regions. Irene Gavras, M.D., clinical professor of medicine, leads the clinical characterization group.



HARALAMBOS GAVRAS, M.D.

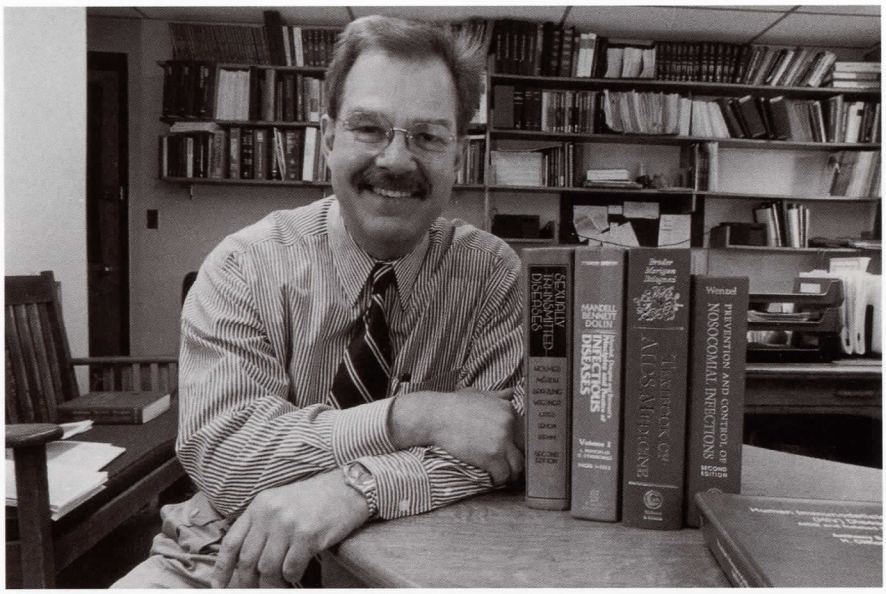
Building Immunologic Models of Disease Transmission for Sexually Transmitted Diseases

As AIDS emerged as the leading cause of death in young Americans last year, many cities, Boston among them, have simultaneously experienced an epidemic increase in the classic sexually transmitted diseases: gonorrhea, syphilis and Chlamydia infection. For a substantial portion of the Boston population at risk for these diseases, treatment begins at the Sexually Transmitted Disease Clinic at Boston City Hospital. Recognizing the importance of these illnesses in the urban population led to the establishment of the Center for Sexually Transmitted Diseases (STDs) at Boston City Hospital and Boston University School of Medicine.

The Center represents a wide range of basic and clinical research programs built around the expertise of the faculty in infectious disease, immunology, epidemiology, molecular biology, and behavioral and clinical research. Directed by Peter A. Rice, M.D., a professor of medicine, the Center is engaged in important basic science and clinical studies that hold the promise of improved detection and treatment of STDs as well as their prevention. Dr. Rice focused his interest in infectious diseases and public health during the early 1970s when he was an epidemic intelligence service officer with the U.S. Public Health Service. He has been a faculty member since 1978 and director of the Maxwell Finland Laboratory for Infectious Diseases at Boston City Hospital since 1990.

The Center has received major support from NIH since 1986 from a program project grant on pelvic inflammatory diseases (PID). Recently, the research program expanded when it was funded by the NIH as a Clinical Research Center for Sexually Transmitted Diseases.

"Young women, primarily from underrepresented minority groups, who live in the inner city and who are poor, suffer the major consequences of sexually acquired PID," notes Dr. Rice. "These include infertility, ectopic pregnancy and chronic pelvic pain. These are costly disorders in terms of suffering to the women and the monetary cost of their care."



PETER A. RICE, M.D.

Major microbial pathogens under scrutiny include *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. These infections are now recognized as important cofactors for enhancing the risk of HIV transmission, which overshadows even the direct consequences of PID itself. Dr. Rice's work focuses on the molecular and immune mechanisms of *C. trachomatis* and *N. gonorrhoea* infectivity and the inflammatory responses to these organisms. "You could call it epidemiology and prevention with an immunologic bent," says Dr. Rice. "We've designed our studies to learn why some women become infected after exposure while others do not. We will then attempt to stimulate protective mechanisms by vaccination." This approach has led to development of a vaccine for gonorrhea which will be tested soon in clinical trials.

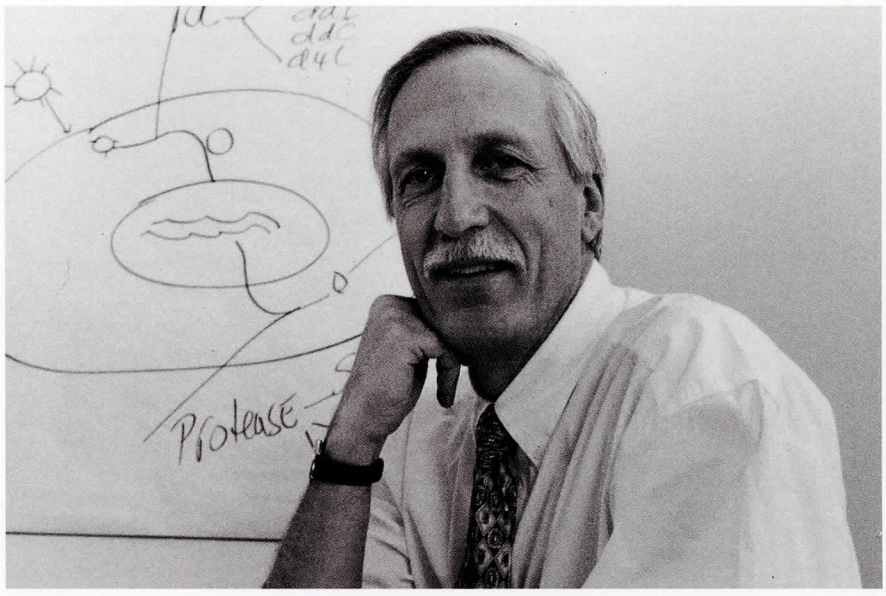
Another aspect of the research is defining the mechanisms and sequelae of damage associated with STD. For example, involuntary infertility, which crosses socioeconomic lines, affects 15 percent of couples in the U.S. and is expected to increase in the years ahead. "We are looking at the possibility that even after treatment, an organism such as Chlamydia can continue to cause damage. Such a low-grade, chronic infection in the uterus can create a hostile environment for implantation of the embryo. We usually think of tubal rather than uterine infertility as the major result of these infections, but it may be that certain microbes (and particularly Chlamydia) may also cause problems in the uterus. Women with a history of chlamydial infections have high pregnancy failure rates even with in vitro fertilization. The egg is fertilized and should implant, but it doesn't," he says.

Clinical AIDS Program at Boston City Hospital: Providing Care to Families and Indigent Populations

The Clinical AIDS Program at Boston University Medical Center has developed several models emphasizing specialized care for women, children, and families.

More than one thousand patients with AIDS or HIV infections are being treated at BCH-managed clinics including the Immunodeficiency Clinic and an HIV Primary Care Program Clinic as well as the facility managed by Healthcare for the Homeless (mentioned earlier). The majority of new cases of HIV seropositive individuals are now occurring in minority populations; this is especially true among newly infected women living in urban areas of the northeast. Among infected children, more than 80 percent are in minority populations.

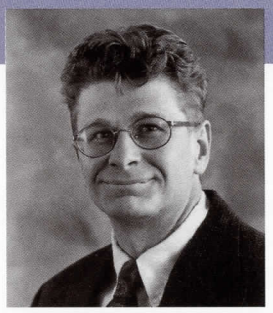
The Adult Clinical AIDS Program, directed by Donald E. Craven, M.D., a professor of medicine and epidemiology, has won wide recognition for its excellent, community-oriented AIDS care. "Because we treat a wide spectrum of AIDS at all stages of the disease—outpatient, acute and chronic—we have become a major training center for health professionals from across the country and around the world interested in learning how these populations are managed," said Dr. Craven. The program also participates in a collaborative AIDS Clinical Trials Unit funded by the NIH and has been involved in a number of clinical trials evaluating new therapeutic approaches to AIDS. Investigators in the clinical AIDS program have also made important contributions to the understanding of the pathogenesis of HIV infection in women, children and minority populations. Stephen Pelton, M.D., a professor of pediatrics, directs the comprehensive pediatric component.



DONALD E. CRAVEN, M.D.

Perhaps the most rewarding experience in my eight years as dean has been the recruitment of outstanding young faculty to the school. Some representative examples of recent recruits illustrate the excellence and broad range of talents they bring to this campus

Neurosciences

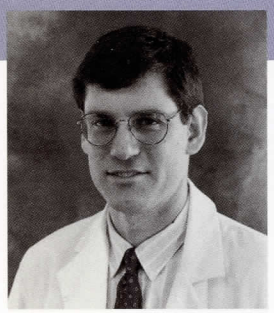


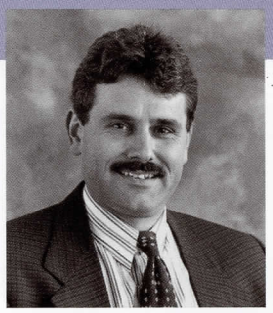
In 1995, less than a year after her recruitment here, **Isabelle Mintz, Ph.D.,** an assistant professor of pharmacology and experimental therapeutics, won two important awards: a Klingenstein Fellowship and a Alfred P. Sloan Fellowship, both in the neurosciences. Dr. Mintz's work focuses on the mechanisms of synaptic transmissions in the mammalian brain. Using toxins discovered in spider or snail venoms, she studies how different classes of calcium channels control the transfer of information between central neurons. This work will help clarify pathological situations such as epileptic seizures during which vital intracellular functions mediated by calcium ions are compromised.

Dr. Mintz earned her Ph.D. in molecular and cellular pharmacology from the Ecole Normale Supérieure, Université de Paris. After working as a postdoctoral fellow at the Institut Pasteur in Paris, she was a junior scientist at the Institut National de la Santé et de la Recherche Médicale (I.N.S.E.R.M.) and at Harvard Medical School.

An expert in recombinant RNA technology, **Kevin Jarrell, Ph.D.,** an assistant professor of pharmacology and experimental therapeutics studies ribozymes, which are enzymes composed of ribonucleic acid (RNA). His work has shown that ribozymes can be used to create specific recombinant RNA and DNA molecules. He recently demonstrated that ribozymes can be used as tools for gene engineering and, eventually, novel therapeutic agents. His current research, supported by NIH grants, examines the role of RNA processing in the brain.

Dr. Jarrell earned his doctorate in molecular genetics from Ohio State University and was a postdoctoral fellow at Harvard University, where he won fellowships from the American Cancer Society and the NIH.





Joseph A. Vita, M.D., joined the faculty in 1994 as an associate professor of medicine and associate director of the Cardiac Catheterization Laboratory at Boston University Medical Center Hospital. Dr. Vita's research focuses on endothelial vasomotor function and the role of endothelial dysfunction in patients with coronary artery disease. His recent findings have suggested that increased oxidative stress is a mechanism of endothelial dysfunction in atherosclerosis and provides a potential explanation for the apparent beneficial effects of certain antioxidant vitamins for coronary heart disease.

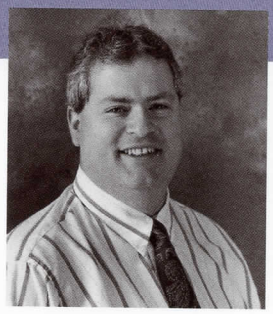
Dr. Vita received his B.S. from Yale University and his M.D. from Columbia University's College of Physicians and Surgeons. After internship and residency at Presbyterian Hospital in New York and cardiology fellowship at Brigham and Women's Hospital, he directed the Cardiac Catheterization Laboratory at the West Roxbury VA Medical Center. Dr. Vita has won the prestigious Clinician Scientist Award of the American Heart Association and the Clinical Investigator Award from the NIH.

Balthasar Frei, Ph.D., provides a strong basic science perspective on this innovative work on oxidative processes. Dr. Frei, an associate professor of medicine and biochemistry, earned his doctorate at the Swiss Federal Institute of Technology in Basel, Switzerland, and did post-doctoral work at the University of California, Berkeley. He was on the faculty at the Harvard School of Public Health before accepting an appointment here in 1994.

His research focuses on the oxidative modification of low-density lipoprotein (LDL) and the mechanisms by which this modification of LDL contributes to the build-up of atherosclerotic plaque in the coronary arteries. He has demonstrated that vitamin C effectively prevents LDL oxidation in the test tube, and he is currently collaborating with Drs. Keaney and Vita to examine whether vitamin C has similar beneficial effects in patients with coronary artery disease.

Winner of an Established Investigator Award from the American Heart Association, **Katya Ravid, D.Sc., Ph.D.,** builds transgenic mouse models that yield new information about the molecular genetics of certain disorders. Dr. Ravid has established a core Transgenic Laboratory that provides other investigators at the School of Medicine with animals that have specifically tailored genetic disorders. In her own research, Dr. Ravid, an associate professor of biochemistry and associate research professor of medicine, studies the molecular genetics of blood platelet development and function, Dr. Ravid has identified kinases that regulate the cell cycle in platelet precursors and recently created a transgenic mouse model for the blood disorder Essential Thrombocythemia.

Dr. Ravid earned her undergraduate degree from Technion, the Israel Institute of Technology, with distinction, as well as Ph.D. and D.Sc. degrees in biology, and was awarded the prestigious Weitzmann Instituter Post-Doctoral Award. She completed postdoctoral fellowships at Brandeis University and Massachusetts Institute of Technology before joining the faculty here in 1994.



Drug and Vaccine Development for STDs and Infectious Disease . . .

M. Audrey Rudd, Ph.D., a research assistant professor in medicine, examines abnormalities in the very small blood vessels of the heart as related to the problem of cardiac damage that occurs in response to elevated blood pressure. Specifically, she examines the role of salt in modulating the nitric oxide synthase system, which is believed to be important in maintaining normal microcirculatory function. Using a genetic strain of rats whose blood pressure increases markedly on a high salt intake, Dr. Rudd manipulates the salt environment and measures the mRNA for nitric oxide synthase and its genetic expression to determine whether or not salt reduces the function of this system.

Dr. Rudd earned a B.S. from North Carolina Central University and a Ph.D. in physiology from Wake Forest University. She was a member of the faculty of the Brigham and Women's Hospital and Harvard Medical School before joining the faculty here. She was a recent recipient of the Black Achiever's Award.

John F. Keaney, M.D., an assistant professor of medicine, investigates the effect of nitric oxide, an endogenous product of the vascular endothelium, on the regrowth of arteries after balloon angioplasty. These basic studies indicate that coating arteries with nitric oxide at the time of angioplasty prevents that abnormal growth of the artery known as restenosis. These findings hold promise as a potential treatment for patients undergoing balloon angioplasty.

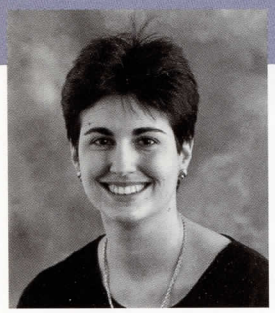
Dr. Keaney graduated from Harvard College and Yale University School of Medicine. He completed a residency and cardiology fellowship at Brigham and Women's Hospital in Boston. Since his recruitment here in 1994, he has directed the cardiovascular animal research program and is a staff cardiologist. He is the recipient of a Pfizer Fellowship Award and a Clinical Investigator Development Award from the NIH.

On the trail of a new vaccine at the Center for Sexually Transmitted Diseases, **Lee M. Wetzler, M.D.,** an assistant professor of medicine and microbiology, studies specific bacterial outer membrane proteins, termed *porins,* and the immune responses to these proteins. He is using these proteins as vaccine candidates to prevent these diseases and as adjuvants to help induce a better immune response.

"The gonococcal porin has great potential as a vaccine candidate for a number of reasons," notes Dr. Wetzler, "especially because antibodies which recognize the porin are also bactericidal—they can kill the organism. They also appear to prevent invasion of the organism into cells. In collaboration with Rockefeller University and the National Institutes of Health, we are using liposomes to develop a gonococcal porin vaccine to be used in humans. This approach also could lead to vaccine development to protect against other STDs and against bacterial meningitis caused by a related organism, *Neisseria meningitis*."

Dr. Wetzler graduated from the State University of New York (SUNY) Upstate Medical Center and after an internship and residency at the University of Michigan Medical Center, spent six years at the Rockefeller University. After one year as a fellow, he joined the faculty here in 1993.

. . . and Basic Research with Implications for HIV and AIDS.



Using the techniques of X-ray crystallography and chemical kinetics, **Dr. Karen Allen,** an assistant professor of physiology, studies enzymes that are potential targets for the design of therapeutic inhibitory ligands such as anti-bacterial and anti-inflammatory drugs. Her structural studies use X-ray crystallography to visualize the exact position of the atoms that make up an enzyme, thus obtaining a detailed picture of the target enzyme shape. Knowledge of the shape of the enzyme enables the design of ligands to fit that shape, to glean the nature of their interactions, and to guide the design of new and more effective drugs.

Dr. Allen earned a B.S. in biology from Tufts University, and a Ph.D. in biochemistry from Brandeis University. She conducted postdoctoral research in X-ray crystallography at the Massachusetts Institute of Technology and Brandeis University, during which time she won an American Cancer Society Fellowship. After joining the faculty here in 1993, she was awarded a National Science Foundation Research Planning Grant.

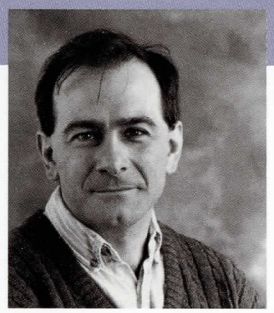
In the laboratory, some very promising research in a nutritional aspect of AIDS has been uncovered by **Gregory Viglianti, Ph.D.,** a recently appointed assistant professor of microbiology.

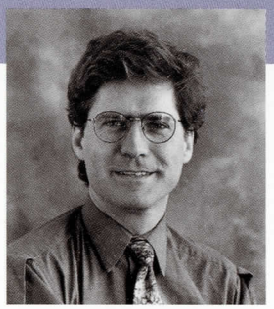
A major problem with HIV-1 infections is that the virus mutates extremely rapidly and can generate variants that are resistant to current drugs. Dr. Viglianti reports "We are looking at the mechanisms through which vitamin A and its metabolic derivatives repress HIV-1 replication in macrophages, cells that are normally infected by HIV-1. We have found that vitamin A induces macrophages to produce factors that bind to the transcriptional control region of the virus and virtually shut down transcription. The end result is that the virus is unable to synthesize the proteins it needs for replication."

After completing undergraduate studies at Lafayette College, Dr. Viglianti earned a Ph.D. in genetics from the University of Minnesota. With a Damon Runyan-Walter Winchell Cancer Fund Award, he conducted postdoctoral work in the Department of Biochemistry and Molecular Biology at Harvard University. Before joining the faculty here in 1995, he was an assistant professor in molecular medicine at the University of Massachusetts Medical School.

Nereida A. Parada, M.D., earned her M.D. degree from Columbia University's College of Physicians and Surgeons. After completing an internship and residency at the University of Pittsburgh School of Medicine and a Pulmonary and Critical Care Fellowship at Boston University School of Medicine, she joined the faculty as an assistant professor of medicine in 1993. Dr. Parada was awarded a Robert Wood Johnson Foundation Minority Medical Faculty Development Fellowship and a Minority Investigator Research Supplement Award from the National Heart, Lung and Blood Institute for her work with interleukin 16 (IL-16). IL-16, a protein product from T-cells with implications for HIV infection and inflammation, was discovered here at the Pulmonary Center by Drs. David Center, William Cruikshank and Hardy Kornfeld. Dr. Parada works on IL-16's potential role in rebuilding the immune system in HIV positive individuals. These findings hold potential for preventing the immunological deterioration associated with full-blown AIDS.

Health Services and Public Health





A key to future treatment for immune deficiency may lie in in vivo models developed by **Dr. Guillermo E. Taccioli**, an assistant professor of microbiology who joined the faculty early this year. By studying the molecular aspects of a crucial reaction involved in the generation of antibodies in lymphocytes, Dr. Taccioli has demonstrated a direct link with the DNA repair system. Oncologists routinely exploit the DNA-damaging properties of agents that generate double strand breaks for treatment of cancer patients. Dr. Taccioli generates mouse models using "knock-out" technology to test the impact of these molecular products on chromosomal instability and tumor susceptibility, as well as on human immune deficiencies.

Dr. Taccioli earned his Ph.D. in biochemistry from the University of Buenos Aires and subsequently won fellowships at Columbia University and Harvard Medical School to continue his research in DNA repair. He came here with a Special Fellow Award from the Leukemia Society of America.

Pediatrics with a public health perspective characterizes the professional life of **William G. Adams, M.D.,** an assistant professor of pediatrics. After graduating from Columbia University's College of Physicians and Surgeons, Dr. Adams completed a residency at Children's Hospital in Boston. He then became an epidemic intelligence service officer with the Centers for Disease Control in Atlanta and later worked in Africa, Pakistan and South America. His epidemiologic work documenting the decline of *Haemophilus influenzae* meningitis in the United States following the introduction of the *H. influenzae* conjugate vaccines has won accolades from the scientific community. He joined the faculty here in 1993.

Dr. Adams was selected recently as one of fifteen young physicians nationwide to be awarded support through the Generalist Physician Faculty Scholars Program, a national program sponsored by The Robert Wood Johnson Foundation to support both faculty development and research for generalist physicians in the U.S.

Mark J. Prashker, M.D., M.P.H., an assistant professor of medicine and public health, directs the Center for Health Quality, Outcomes and Economic Research at the Edith Nourse Rogers Memorial Veterans Hospital in Bedford.

Dr. Prashker is developing an econometric model to estimate the demand for out-patient rheumatology, and to identify strategies for producing ambulatory care more efficiently. His innovative approach has won him a Veterans Administration Health Services Research and Development Research Associate Career Development Award and a Physician Scientist Development Award from the American College of Rheumatology.

Dr. Prashker graduated from Princeton University with a degree in economics and from the Medical College of Pennsylvania. He had residency training at the University of Pittsburgh School of Medicine and was a Rheumatology Fellow at Boston University School of Medicine before obtaining an M.P.H. degree from the Boston University School of Public Health in 1992.

As we went to press, it was announced that Jon Westling, who was named president-elect a year ago, will become president of Boston University on June 1, 1996. John Silber, whose twenty-five-year presidency ends May 31, will become chancellor of the University.

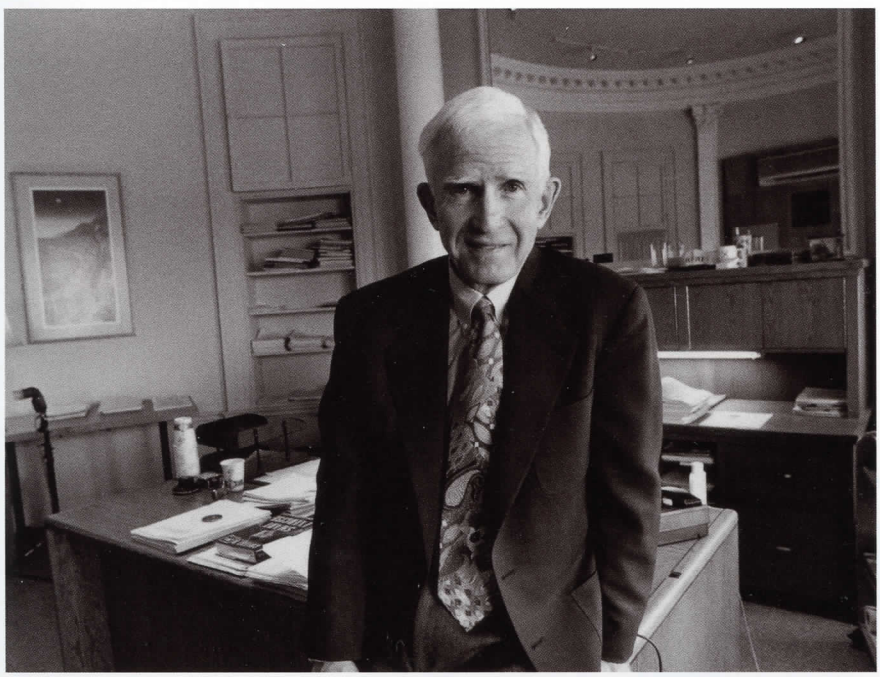
In addition, Mayor Thomas Menino announced that final agreement had been reached on the plan to merge Boston City Hospital and Boston University Medical Center Hospital. This new entity provides a safer harbor from the rough seas of health-care reform for these two hospitals while protecting the academic interests of the School of Medicine and the public health mission of Boston City Hospital.

More details of these developments will appear in the months ahead.

Dr. Richard H. Egdahl Builds New Ventures

After twenty-three years as director of the Boston University Medical Center and academic vice president for health affairs at Boston University, Richard H. Egdahl announced this spring his intention to step down from these positions. Beginning July 1, 1996, he will devote full time to his job as director of the Boston University Health Policy Institute and its Program in Health Care Entrepreneurship.

A highly respected surgeon whose accomplishments in basic scientific research won singular recognition, Dr. Egdahl was among the first to observe—in the late 1960s—that escalating health care costs and problems of access to care would precipitate changes in reimbursement techniques. More importantly, he developed solutions to what became "the health care crisis," building concepts and methods of utilization review, quality assurance, managed care—in short, a health services orientation to medical practice. The think-tank he created became the Health Policy Institute (HPI) in 1975, and has served as a base to develop these concepts with Fortune 500 companies and to encourage entrepreneurs and incubate ideas for the future. "This has evolved into a place for people to come for a preceptorship in health care entrepreneurship," notes Dr. Egdahl. "It is a good incubating ground for someone with an idea." "Graduates" of the Health Policy Institute include CEOs, a college president, health services researchers, and entrepreneurs. The entrepreneurship program helps physicians and others develop their ideas on health products for use in tomorrow's health care system, with a special focus now on devices and technologies to help patients receive care in ambulatory settings or in their homes.



RICHARD H. EGDAHL, M.D., PH.D.

Richard H. Egdahl attended Dartmouth College and earned his medical degree from Harvard Medical School. While completing his internship and residency in surgery at the University of Minnesota, Dr. Egdahl also earned a Ph.D. in physiology. His research on the hormonal response to injury contributed to the extraordinary recognition of a surgeon's research by the Endocrine Society in giving him its 1962 CIBA Award. Dr. Egdahl was recruited to Boston University in 1964 to be chairman and Utley Professor of the Department of Surgery, a post he held until 1973 when he was appointed director of the Boston University Medical Center and academic vice president for health affairs. He is the author of more than three hundred publications in basic science, clinical science and health policy and a textbook on surgery, and sits on various corporate and editorial boards. Dr. Egdahl is a member of the Institute of Medicine of the National Academy of Sciences. In 1986 the National Association of Employers on Health Care Alternatives honored him as "the provider who has contributed the most in health cost containment during the past ten years."

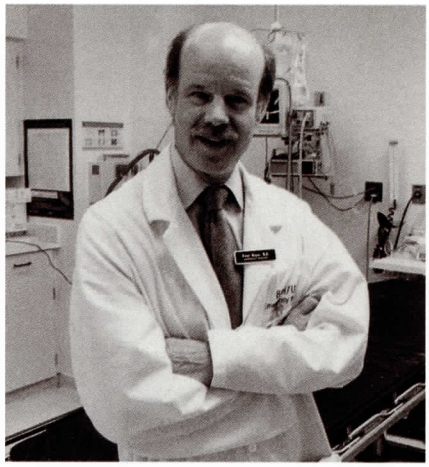
New Department/New Chairman in Emergency Medicine

Recognizing the importance of emergency medicine on this campus and nationally, the faculty last spring voted to establish a Department of Emergency Medicine and I am pleased to announce the appointment of Peter Moyer, M.D., as chairman of the new department.

Dr. Moyer graduated from Harvard College and Columbia University's College of Physicians and Surgeons. After completing residencies in New York, he joined the faculty of Albert Einstein College of Medicine, where he worked in the Jacobi Hospital Emergency Department and was medical director of Einstein's Institute of Emergency Medicine.

Since his arrival at Boston University School of Medicine, he has won respect from his colleagues for his unusual ability to impose order on the myriad activities and human dramas that unfold in the emergency department. Dr. Moyer has recruited an excellent faculty, which now staffs the emergency departments at Boston City Hospital and Boston University Medical Center Hospital. The BCH Emergency Medicine Residency Program is the only one in Boston.

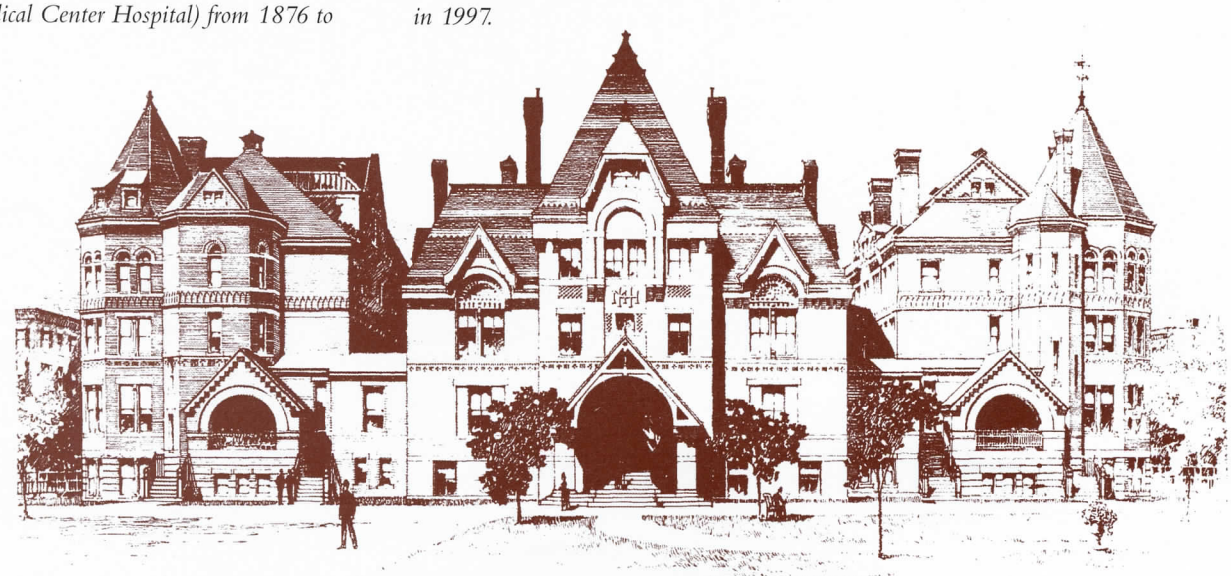
"Emergency Medicine is a very service-oriented field, operating twenty-four-hours a day, seven days a week," notes Dr. Moyer. "For medical students it is a wonderful learning environment because it provides first contact with undifferentiated illness of all types—psychiatric to trauma—in all ages. It offers a window into the community's state of health. Because Emergency Medicine is problem-based, it is a perfect match for the Integrated Problems course in which several Emergency Medicine faculty teach. Emergency medicine teaches the significance of teamwork—working with nurses, EMTs, social workers and clerks—in the provision of health care. In addition, faculty and residents have conducted research in areas pertinent to their patients: chest pain, substance abuse, asthma and ectopic pregnancies."



PETER MOYER, M.D.

Dr. Moyer has a special interest in youth violence. He has lectured and written about the subject and has been instrumental in instituting programs addressing it. He is also interested in international health, having travelled on medical trips to Armenia, Latin America and Africa. He is an examiner for the American Board of Emergency Medicine.

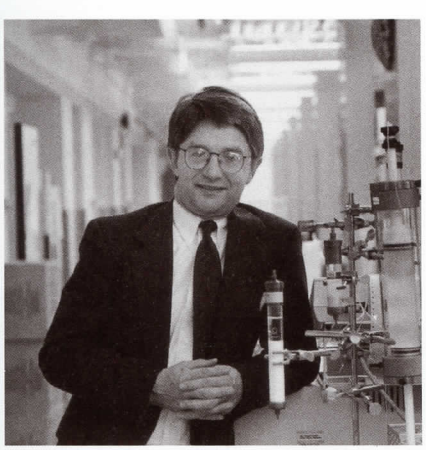
The rapidly growing School of Public Health has found a new home in the Talbot Building. This handsome structure served as the home of the Massachusetts Homeopathic Hospital (ancestor of the Boston University Medical Center Hospital) from 1876 to 1929. Rehabilitation has already begun and the several departments of the School of Public Health, which have been housed at several locations on campus, will share this historic structure when they take occupancy in 1997.



Technology Transfer: Guiding molecular products for prevention and therapy from the laboratory through clinical trials and into the marketplace

To help scientists here at the medical center negotiate the leap from bench to boardroom, and to help assure that the University earns a fair return for its discoveries, a new director was recruited in the past year to the Office of Technology Transfer.

Ashley Stevens, Ph.D., a physical chemist with many years of experience in licensing, marketing and business development in biotechnology, coordinates the entire University's interaction with the biotechnology world. "This office is now signalling a more proactive role for technology transfer," says Dr. Stevens. "There are some very unique strengths at Boston University. Here in the Community Technology Fund, we have one of the few successful, and by far the oldest, in-house venture fund of any university. We are the only Boston area academic institution that seamlessly integrates technology transfer across the entire spectrum of academic disciplines—the Schools of Medicine, Dental Medicine and Public Health, and a teaching hospital, as well as computer sciences and physical sciences, including our unique Photonics Center. Finally, there is BioSquare.



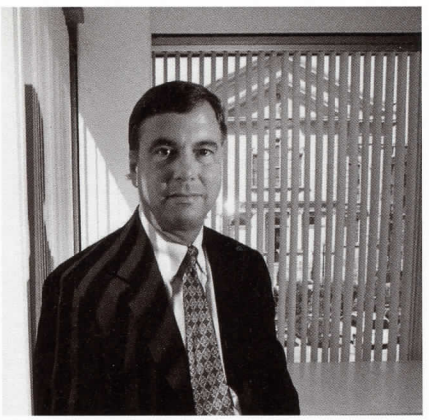
ASHLEY STEVENS, PH.D.

"The role of technology transfer is to identify scientific research that looks as if it has practical ramifications, to protect these discoveries, usually by applying for patent protection, and then to help transition them out of the academic setting into a corporate setting where the scientific potential can be confirmed and converted into practical products. We do this in a way that ensures that Boston University will share in the long-term success of the product, but we also try to establish collaborations that will benefit our scientific activities in the short term."

After earning his Ph.D. at Oxford University, Dr. Stevens worked at Proctor and Gamble and at Biotechnica. He was recruited by the Dana-Farber Cancer Center in 1991, where he headed the technology transfer activities.

New Combined Residency Program in Pediatrics Unites Boston City Hospital and Children's Hospital

In a remarkable new joint venture, the residency program in pediatrics now combines the rich history of primary care and clinical research at Boston City Hospital with the expertise in dealing with unusual and complex problems at the nation's leading children's hospital here in Boston, Children's Hospital. "By training primary care pediatricians together with subspecialists, we will impart to each group an appreciation of the clinical issues particular to the field, thereby providing better and more cost-effective care," says Barry Zuckerman, M.D., professor and chairman of the Department of Pediatrics.



JOHN KINDZERSKE

Director of Development Named

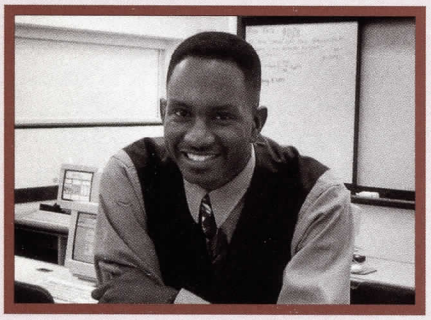
John Kindzerske, a development officer with many years' experience in foundation and corporate relations, assumed the position of director of development and assistant vice president in March.

Mr. Kindzerske had been director of foundation and corporate relations at Dartmouth Medical School and Dartmouth-Hitchcock Medical Center. There, he participated in a capital construction campaign, educational and research fundraising, and program development. Earlier positions in development were at Carnegie-Mellon University, the Opera Company of Boston and Tufts University School of Medicine. His first professional job was as a librarian at Mugar Memorial Library at Boston University, but a keen interest and ability in fund-raising stimulated a career change into the development arena.

"I am returning to Boston University at a time of change, challenge and opportunity for academic medicine," Mr. Kindzerske notes. "Charitable giving will play an increasingly important role in sustaining and enhancing first-rate medical institutions and I am glad to be working with Boston University School of Medicine's faculty, alumni, staff and friends in this regard."

Almer Ray Love II, '99

Almer Ray Love II, '99, president of the School's chapter of the Student National Medical Association, organized a stirring series of talks by prominent African American physicians to celebrate this year's Black History Emphasis Month.



A graduate of the University of Texas at Austin, Ray taught at Massachusetts Bay Community College and worked with teenagers through St. Paul A.M.E. Church in Cambridge before entering medical school. During this time, he devoted a substantial portion of his time to working with youth at risk. "I began by connecting with the Ten Point Coalition ministers," says Ray, "and would spend Friday nights walking the streets in one of Boston's toughest neighborhoods to reach out to the young men most directly at risk for violent behavior. I have continued to work at Bethel A.M.E. Church, meeting with young men who have been involved in violent incidents and discussing conflict resolution. By helping them to see a vision of a more peaceful community, we will increase their capacity to become forces of positive change in their neighborhoods."

Heidi Abdelhady, '98

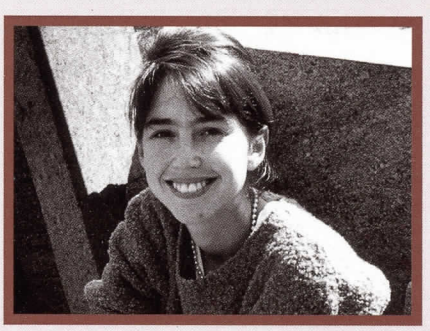
Last summer and fall, Heidi Abdelhady, '98, was an active participant in the site visit that culminated in our successful bid for the Outstanding Community Service Award. A community-oriented approach to medical education is in keeping with Heidi's background. She started fund-raising for Children's Hospital in Pittsburgh while still in high school; at the University of Pittsburgh she was active in student government. Here at Boston University, she was elected president of the University's Chapter of the American Medical Student Association, which focuses and coordinates much student community activity such as food drives and child safety projects.

When asked by the AAMC for the student perspective on winning the award, Heidi said, "Winning the AAMC Community Service Award makes us, the student body, feel proud! Many students come here with a strong commitment to community service and because community service is part of the curriculum, we're learning while we're helping. It's a winning combination. However, our learning extends beyond the diagnosis and treatment of disease because we also become educated on the contributing social and economic factors. This produces a better community and better physicians."

Bonnie Hartstein, '97

Bonnie Hartstein, '97, spent last summer in Washington, D.C., gaining a glimpse of the future. Working as a Health Policy Fellow with Rep. William Thomas of California, chairman of the House Ways and Means Health Subcommittee, her research helped frame the debate on physician anti-trust reform and Medigap insurance policies and taught her how shifts in health policy now will influence medical practice in the next century.

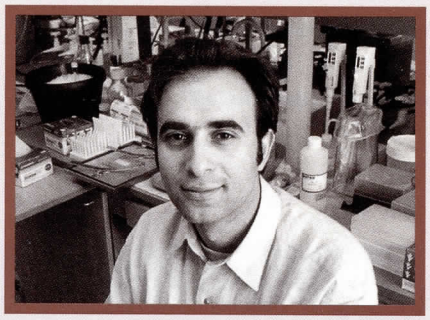
"It is really important for practitioners to have a role in shaping policy," says Bonnie, who monitored the flow of information to the committee from various interest groups. "Especially now when economics are playing a huge role in allocation of scarce resources. From what I could see in the Congress, I think in the future we will see more of a role for the free market,



with control of funds moving from third party payors to consumers themselves." She also handled constituent correspondence on health matters and developed briefing memos.

A graduate of the University of Michigan, Bonnie was a U.S. Army officer for three years, serving first as an ambulance platoon leader in the Medical Service Corps in Korea and later as a department administrator in the Department of Obstetrics and Gynecology at Walter Reed Army Medical Center, Washington. She plans to combine patient care with involvement in public policy.

Saeid Farivar, '98



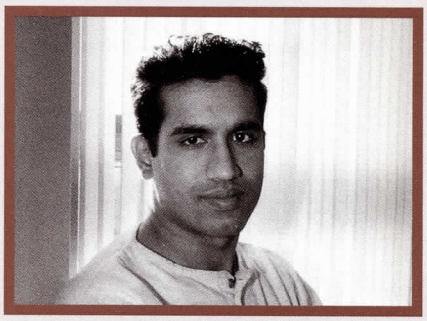
Saeid Farivar, '98, an M.D.-Ph.D. candidate, has been conducting some very interesting research on the effects of hypertension and nitric oxide on fibrosis and scarring in the heart. Saeid employs an old drug—aspirin—to alter the transcription of redox-sensitive genes that may regulate fibrotic responses in the heart.

"When I first started research at the Cardiovascular Institute," says Saeid, "I used a whole animal model to examine the relationship between high blood pressure and cardiac fibrosis. I was intrigued that the fibroblasts proliferated in areas of inflammation which were adjacent to the muscle cells of the heart. In order to understand the molecular mechanisms involved, I set up a cell culture model of cardiac fibroblasts and determined that the cardiac fibroblasts make nitric oxide, a gaseous molecule that can be destructive to tissue if present in excessive amounts. Nitric oxide is present in high amounts in many inflammatory diseases such as rheumatoid arthritis.

"The aspirin-like drugs, or salicylates, have many effects and not all of them have been well explained. We postulated that salicylate may be able to inhibit the production of an inflammatory molecule, nitric oxide and this indeed was the case. We found that nitric oxide synthase gene was turned off by salicylate. This may help us to understand not only how nitric oxide may be inhibited in certain diseases, but also how salicylates function."

Saeid's work won first place in the Evans Research Day Competition in May 1995, and earned Saeid a trainee investigator award at the American Federation of Clinical Research. A graduate of Yale University, Saeid worked in materials research before entering medical school in the fall of 1991. He plans a career in cardiology.

Ashok Panigraphy, '98



The winner of a research award from the Howard Hughes Medical Institute, Ashok Panigraphy, '98, will begin his clinical training this summer after two intensive years studying what appears to be a genetic basis for certain forms of Sudden Infant Death Syndrome (SIDS).

Ashok became interested in the brain chemistry of SIDS while an undergraduate in our Seven-Year Program. By the time he entered medical school here in 1992, his research on muscarine cholinergic receptors had already secured a fellowship from the Society for Pediatric Research. Upon completion of the first two preclinical years, his award from the Howard Hughes Medical Institute helped to support him as a research assistant at Harvard Medical School and the University of California, Los Angeles, School of Medicine where he continued the study of mascarinic cholinergic receptor binding in animal models and human tissue studies. Ashok was part of a team that identified a deficiency of muscarinic cholinergic receptor binding in a section of the brainstem that controls breathing in a subset of SIDS victims.

"I hope to pursue a career in academic medicine and continue research related to SIDS," says Ashok. "I am interested in pediatric neuroradiology, not only because of my interests in brain imaging, but also because I believe that in the future, neuroradiological techniques may be the way to diagnose brain lesions in infants at risk for SIDS."

Since this space usually acknowledges outstanding alumni for professional accomplishments, winners of the 1996 Alumni Awards are listed below. But this year, I am very proud, too, to recognize alumni who chose to honor the school. Individual alumni underwrote five out of ten conference rooms in the new McNary Learning Center, while the Alumni Association as a whole contributed Alumni Hall, a new state-of-the-art lecture hall.

Individual alumni who funded conference rooms included Ann C. Cea, '67; Merwyn Bagan, '62; an anonymous alumnus; Rocco S. Marino, '42; and Sanford W. Udis, '44.

Hiebert Lounge was packed for the grand opening of the McNary Center on November 9, and alumni representation spanned six decades, ranging from Andy Chiou, '92, to Nicholas Cea, '31.

Dr. Cea senior attended Boston University School of Medicine from 1929 to 1931 when he graduated *cum laude.* After completing a residency at Mountainside Hospital in Orange, New Jersey, he began the practice of medicine in the Bronx, New York, in 1933. "I started out charging one dollar for office visits and two dollars for house calls," Dr. Cea recalls, looking back on a practice that combined obstetrics, surgery and family practice. He delivered more than three thousand babies—in some families, four generations. "I have been in the same office here on Buhre Avenue for all these years. I now get there at 9 a.m. and go home at 1 p.m. Monday, Wednesday and Friday. I mostly see people over seventy years of age. . . . I treat them nicely and do all I can to keep them going. It keeps me happy because I want to stay busy. If I'm busy I stay happy."

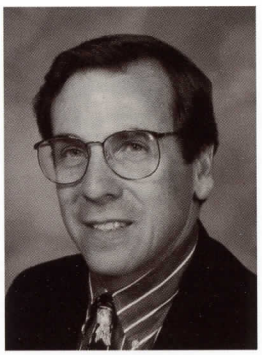
At opening ceremonies last fall, Boston University Provost Jon Westling offers a plaque of thanks to Ann C. Cea, M.D., '67, and her father, Nicholas Cea, M.D., '31, for naming a conference room in the new McNary Learning Center.

Two of Dr. Cea's three children attended Boston University School of Medicine: Richard J. Cea, '63, and Ann C. Cea, '67; while Philip C. Cea graduated from New York Medical College in 1970. Daughter Ann C. Cea, M.D., '67, is a member of the BUSM Chester Keefer Society and a lifetime member of the Dean's Club. She recently joined the School of Medicine's Board of Visitors. A practicing radiologist in Rye Brook, New York, she is a clinical assistant professor in radiology at New York Medical College. The plaque she dedicated in the McNary Center conference room honors her father and daughter Kristen Cea Wolanske, '96.

In addition to honoring three generations, Ann Cea said she was thrilled to participate in the tribute to Dr. McNary. During her first two years here, Dr. Cea worked with Dr. McNary on a research project during the summer. "Students and faculty took turns making lunches. Dr. McNary made some incredible rabbit stews, and none of us will ever forget Dr. Ifft [John D. Ifft, Ph.D., associate professor of anatomy emeritus] cooking snails on a bunsen burner."

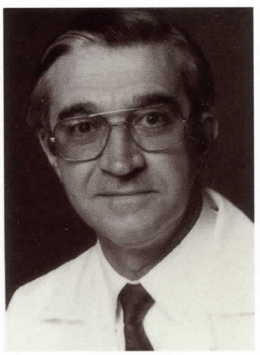
1996 Distinguished Alumnus Awards

Richard D. Bland, '66, is the Fields Professor of Pediatrics and director of the Children's Research Program in Developmental Lung Biology at the University of Utah School of Medicine. The recipient of an Established Investigator Award from the American Heart Association, his research has focused on the fetal and newborn lung, with particular emphasis on studies of the pulmonary circulation and lung fluid balance before and after birth, mechanisms of neonatal lung injury, and treatment of respiratory failure. A member of the National Institutes of Health Respiration and Applied Physiology study section, he is on the editorial board of the *Journal of Applied Physiology*. He did his general pediatric training at Johns Hopkins in Baltimore and completed his postdoctoral research fellowship at the Cardiovascular Research Institute of the University of California, San Francisco.



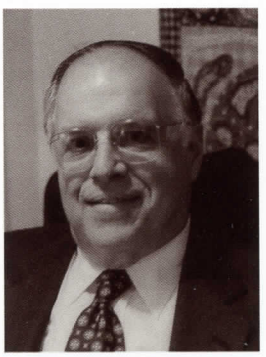
RICHARD D. BLAND

Peter J. Deckers, '66, is the Murray-Heilig Professor of Surgery and dean of the University of Connecticut School of Medicine. Considered one of the best cancer surgery specialists in the United States, he served as chairman of the executive committee of the National Surgical Adjuvant Breast and Bowel Project and president of the New England Cancer Society. His research is extensive, with more than 130 publications to his credit. He is on the editorial boards of the *Breast Surgery: Index and Reviews* and *Surgical Oncology*. He did his internship and residencies at Boston City Hospital and the Boston University Medical Center and completed a fellowship in surgical oncology and tumor biology at the National Cancer Institute. Dr. Deckers joined the faculty here in 1972 and rose to the rank of Professor of Surgery before leaving in 1983.



PETER J. DECKERS

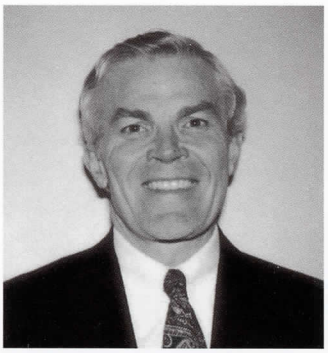
Frederic D. Frigoletto, Jr., '62, is the Charles Montraville Green and Robert Montraville Green Professor of Obstetrics and Gynecology at Harvard Medical School, and chief of the Vincent Memorial Obstetrics Division at the Massachusetts General Hospital. With more than 135 publications to his credit, his major research interests include clinical perinatal medicine, isoimmune hemolytic disease of the fetus, prenatal diagnosis, and ultrasound imaging in pregnancy. He serves as president of the American College of Obstetrics and Gynecology, and chairman of the College's Committee on Professional Standards, and is an examiner for the American Board of Obstetrics and Gynecology. He did his internship and residencies at Boston City Hospital.



FREDERIC D. FRIGOLETTO, JR.

1996 Humanitarian Award

Courtland L. Harlow Jr., '71, is a plastic and reconstructive surgeon on staff at three Massachusetts hospitals: South Shore Hospital, Milton Hospital, and Franciscan Children's Hospital. A member of Interplast, an international group of plastic surgeons who donate their services to treat people living in third-world countries, he performs surgery on people who would not normally have access to plastic or reconstructive procedures, including children who are born with facial abnormalities that are sometimes life threatening. His international volunteer activities are accompanied by services to his local community. He is a member of the Board of Directors of "My Brothers Keepers," a Brockton, Mass., based organization that provides food and household items to help people in transition from homelessness. He did his residencies at Boston University Medical Center, the University of Miami Medical School Center, the University of Louisville and the Clinique du Belevedere and Hospital Foch in France. His specialty training includes cosmetic surgery, hand surgery, microsurgery, laser surgery, head and neck cancer surgery, oral and maxillofacial surgery, cleft lip and palate surgery and pediatric and general plastic surgery.



COURTLAND L. HARLOW, JR.

IN MEMORIAM

Murray Freed, M.D., '52
Former Chairman of Rehabilitation Medicine

Murray Freed, M.D., professor of rehabilitation medicine emeritus, died December 2. A combat veteran of World War II whose own injury made him keenly aware of the needs of people with disabilities, Dr. Freed started the first civilian spinal cord injury center in the country in 1955. Dr. Freed chaired the Department of Rehabilitation Medicine from 1967 to 1993 and during his tenure served as director of the New England Regional Spinal Cord Injury Center based at Boston University Medical Center Hospital. Dr. Freed won numerous awards recognizing his contribution to dramatic improvements in life expectancy and quality of life for individuals with spinal cord injury from organizations such as the President's Committee on Employment of the Handicapped, Jewish War Veterans, the Massachusetts Association of Paraplegics, the National Spinal Cord Injury Foundation and the American Academy of Physical Medicine and Rehabilitation. An active alumnus, Dr. Freed served as the BUSM Alumni Association Annual Fund Chairman for ten years and as president of the Alumni Association from 1976 to 1977. He was awarded the Boston University Alumni Special Distinction Medal in 1979 and the BUSM Centennial Award in 1973. Following his retirement, friends, colleagues, patients and the Liberty Mutual Life Insurance Company established a library in his name in the Department of Rehabilitation Medicine.

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